

Supplementary material 1:

S1. The primer pairs (5' to 3')

GAPDH-F: AATCCCATCACCATCTTCCA

GAPDH-R: CCTGCTTCACCACCTTCTTG

E-Cadherin-F: AAGACCAAGTGACCACCTTAGAG

E-Cadherin- R: TCCGCCTCCTTCTTCATCATAG

N-Cadherin- F: CAGCAACGACGGGTTAGTC

N-Cadherin- R: TGGGTCCTGAGCAGTGAAT

β -Catenin- F: TCACTGAGCCTGCCATCTG

β -Catenin- R: GCACGAACAAGCAACTGAAC

ZO-1- F: TTAAGCCAGCCTCTCAACAGAA

ZO-1- R: GGATCTACATGCGACGACAATG

Snail1- F: TCGCTGCCAATGCTCATCTG

Snail1- R: CCAGGCTGAGGTATTCCTTGTT

Snail2- F: GCATATTCGGACCCACACATTAC

Snail2-R: CACAGCAGCCAGATTCCTCAT

Supplementary material 2:

S2. The GO analysis of the differentially expressed genes

	Biological process classification		Cellular component classification		Molecular function classification	
	Up	Down	Up	Down	Up	Down
1	cellular process(1271)	biological regulation(547)	cell part(1351)	membrane(489)	binding(1197)	ion binding(267)
2	metabolic process(943)	regulation of biological process(520)	cell(1351)	cell periphery(318)	protein binding(794)	cation binding(266)
3	biological regulation(918)	regulation of cellular process(489)	intracellular(1211)	plasma membrane(317)	catalytic activity(582)	metal ion binding(261)
4	primary metabolic process(896)	response to stimulus(463)	intracellular part(1194)	extracellular region(184)	ion binding(426)	receptor activity(121)
5	regulation of biological process(873)	multicellular organismal process(411)	organelle(1028)	plasma membrane part(143)	cation binding(425)	signal transducer activity(120)
6	cellular metabolic process(867)	cell communication(341)	intracellular organelle(1027)	intrinsic to plasma membrane(93)	metal ion binding(419)	molecular transducer activity(120)
7	regulation of cellular process(831)	cellular response to stimulus(341)	membrane-bounded organelle(944)	extracellular region part(92)	small molecule binding(288)	signaling receptor activity(98)
8	response to stimulus(738)	developmental process(333)	intracellular membrane-bounded organelle(942)	integral to plasma membrane(92)	nucleotide binding(273)	receptor binding(94)
9	macromolecule metabolic process(731)	signalling(330)	cytoplasm(933)	extracellular space(70)	nucleoside phosphate binding(273)	transmembrane signaling receptor activity(90)
10	cellular macromolecule metabolic process(676)	multicellular organismal development(301)	cytoplasmic part(676)	cell projection part(47)	organic cyclic compound binding(273)	calcium ion binding(57)

S2. Legend:

The Gene Ontology (GO) project provides a controlled vocabulary to describe gene and gene product attributes in any organism (<http://www.geneontology.org>). The ontology covers three domains: Biological Process, Cellular Component and Molecular Function. Fisher's exact test is used to find if there is more overlap between the DE list and the GO annotation list than would be expected by chance. The top ten significant enrichment terms and their numbers of genes involving in every functional group were shown.